Koch, Kristine

From: Jennifer Woronets < jworonets@anchorqea.com>

Sent: Thursday, January 09, 2014 12:53 PM Koch, Kristine; Humphrey, Chip

Cc: Carl Stivers; Amanda Shellenberger; Jim McKenna (jim.mckenna@verdantllc.com); Todd

King (kingtw@cdm.com); Bob Wyatt; Jennifer Woronets

Subject: RE: List of Additional Information That LWG is Requesting from EPA on November 13

PRG/RALs Presentation

Kristine and Chip:

Thank you for providing these initial responses to our questions. It is our understanding that EPA will be providing more detailed written responses to our questions to facilitate upcoming technical meetings. In addition, our technical teams have notified us that some of these initial responses appear to be inconsistent with the information EPA conveyed to the LWG orally at our meeting on November 13th. We look forward to discussing these in greater detail during our Project Managers meeting on January 16th.

Finally, the LWG understood from its senior managers that EPA would be proposing language memorializing the FS process agreement, which would reflect and implement both parties' agreement to engage and work cooperatively to develop the revised FS. We hope to discuss this on January 16 as well.

Thank you, Jen Woronets © Anchor QEA, LLC jworonets@anchorqea.com 421 SW Sixth Avenue, Suite 750 Portland, OR 97204 503-972-5014

Please consider the environment before printing this email.

The information is intended to be for the use of the individual or entity named above. If you are not the intended recipient, please be aware that any disclosure, copying, distribution or use of the contents of this information is prohibited. If you have received this electronic transmission in error, please notify us by electronic mail at jworonets@anchorgea.com

From: Koch, Kristine [mailto:Koch.Kristine@epa.gov] Sent: Wednesday, December 18, 2013 11:49 AM

To: Jennifer Woronets; Humphrey, Chip

Cc: Carl Stivers; Amanda Shellenberger; Jim McKenna (jim.mckenna@verdantllc.com); Todd King (kingtw@cdm.com);

Bob Wyatt

Subject: RE: List of Additional Information That LWG is Requesting from EPA on November 13 PRG/RALs Presentation

Jen – EPA will be providing the detailed technical basis, methods and calculation results as part of the FS revision process; however, here are our initial responses to the information requested.

- Changed direct contact PRGs for human health
 As far as we are aware, the only direct contact PRG that has changed is for in-water sediment exposures by
 tribal fishers. In calculating the PRG, the site-use factor was set to 1 to account for study area-wide
 exposure.
- New cPAH PRG for fish consumption
 The cPAH PRG for fish consumption was calculated using the mean of the BaP BSAFs presented in Appendix A, table 7 of the LWG's PRG report.
- Development of tissue PRGs for fish consumption
 Target tissue levels were calculated based on target risk levels and hazard quotients and the intake equations and exposure assumptions from the BHHRA.

- 4. Rationale for development of sediment PRGs for fish consumption with water set to 0 ug/L in FWM.

 There are only 2 PRGs (both for PCBs) for fish consumption where water was set to 0 ug/L in the FWM.

 Sediment PRGs for fish consumption were calculated with water set to 0 ug/L (in addition to AWQC) in the FWM to be consistent with the approach described in Section 2.2 of the LWG's PRG report. In either case (using 0 ug/L or the AWQC), the resulting risk-based concentration is below background and provides the justification for applying EPA's background policy to PCBs in sediment at the site.
- 5. Rationale for decision to expand cPAH RAL application into navigation channel RALs apply anywhere in the river where there is an exceedance. RALs are not final, risk-based cleanup concentrations. RALs are higher concentrations of a contaminant in the river system that should be removed to reduce or eliminate risk and eventually achieve the final cleanup levels over time. Since there is risk from cPAHs at the site, any contaminant exceeding a RAL is subject to cleanup if technically feasible. At this stage in the analysis of alternatives, there is no basis to exclude any area exceeding a RAL.
- Changed ecological PRGs
 Final ecological PRGs are based on the conclusions of the final BERA.
- 7. Supporting information for background statistics (for chemicals not already provided as part of the RI Section 7 process)
 The resolution to comments on Section 7 of the RI was that the LWG would provide EPA with initial revisions to background values for the remaining key COCs to be presented in Appendix H. This analysis was to be based on the exclusion of the "potential outliers" identified in the 2011 draft final RI, which is consistent with the process used for the 14 indicator contaminants.
- Rationale and selection process for Water-based PRGs (i.e., how EPA made the ARAR criteria selections).
 PRGs for RAOs 3 and 7 are based on Oregon Water Quality Criteria (ARAR), unless otherwise noted. PRGs for RAO 4 are based on MCLs (ARAR), unless otherwise noted. PRGs for RAO 8 are risk-based thresholds, not ARARs.
- 9. Rationale for COC selections/changes
 COCs are based on risk from the baseline risk assessments, as well as identified upland sources. Many
 COCs were combined (e.g., individual PAHs were combined into cPAHs, Total PaHs, Total HPAHs, and Total
 PAHs). Some were eliminated based on weak line of evidence. The PRG list is the final list of COCs for the
 site in all media.
- 10. Rationale for DDx and PeCDF RALs (EPA's original 2011 rationale was vague on several issues. We would like to see any additional rationale, methods, calculations conducted since then.)
 Both the BHHRA and BERA conclude that there are risks from DDx and dioxins/furans. Since these two contaminants are not always comingled with cPAHs, PCBs and benthic risk, it is necessary to develop cleanup levels for these contaminants. The LWG used a DDE RAL, which does not encompass all DDx, so is not protective. PeCDF is used as a surrogate for Total PCDD/Fs; as provided to the LWG previously, there is a good correlation between this furan congener and Total PCDD/Fs at the site.
- 11. Additional information on the Historical Source of PCBs at RM 16 ("Shipyard") mentioned by EPA. EPA is still researching possible sources at RM 16 and will share any information with the LWG.

The LWG also requests a general timeline for when the following information (noted as pending by EPA on November 13) will be available to LWG:

EPA Project Managers will be working with LWG Project Managers in mid-January to develop a schedule for FS revisions. Below are EPA's responses for where in the FS revisions this information will be evaluated.

- How tissue PRGs for fish consumption will be used in the FS and Proposed Plan.
 Tissue PRGs will be used in the FS to evaluate protectiveness and short-term and long-term effectiveness.
 This is used in both the screening of alternatives and in the comparative analysis. In the PP, it will play a factor in selecting preferred alternative and developing long-term monitoring requirements for the site.
- 2. How the new sediment PRGs will be used (e.g., over what spatial scales will they be applied?, what exposure scenarios and receptors to these scales match to?).

Like tissue PRGs, sediment PRGs will be used in the FS to evaluate protectiveness and short-term and long-term effectiveness. This also will be used in both the screening of alternatives and in the comparative analysis.

- 3. EPA decision on the need for any SMA changes based on RAL/PRG changes. SMAs are based on RALs, not PRGs. EPA is completing its independent evaluation using EPAs RALs to determine whether or not the LWG RALs are sufficient for the FS and supporting remedy selection. EPA anticipates making this decision in early January and having discussions with LWG Project Managers Jan 16.
- Comprehensive benthic risk areas (CBRAs or "benthic RALs").
 EPA is reviewing the GIS layers for CBRA that were provided on 12/16. EPA anticipates making this decision in mid January and having discussions with LWG Project Managers Jan 16.

Regards,

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, Washington 98101-3140

(206)553-6705 (206)553-0124 (fax) 1-800-424-4372 extension 6705 (M-F, 8-4 Pacific Time, only)

From: Jennifer Woronets [mailto:jworonets@anchorgea.com]

Sent: Wednesday, December 11, 2013 2:54 PM

To: Koch, Kristine; Humphrey, Chip

Cc: Jennifer Woronets; Carl Stivers; Amanda Shellenberger; Jim McKenna (jim.mckenna@verdantllc.com); Todd King

(kingtw@cdm.com); Bob Wyatt

Subject: List of Additional Information That LWG is Requesting from EPA on November 13 PRG/RALs Presentation

Chip and Kristine -

The LWG is requesting detailed technical basis, methods and any calculation results for the following items related to information you presented at the November 13 meeting:

- 1. Changed direct contact PRGs for human health
- 2. New cPAH PRG for fish consumption
- 3. Development of tissue PRGs for fish consumption
- 4. Rationale for development of sediment PRGs for fish consumption with water set to 0 ug/L in FWM.
- 5. Rationale for decision to expand cPAH RAL application into navigation channel
- 6. Changed ecological PRGs
- 7. Supporting information for background statistics (for chemicals not already provided as part of the RI Section 7 process)
- 8. Rationale and selection process for Water-based PRGs (i.e., how EPA made the ARAR criteria selections).
- 9. Rationale for COC selections/changes
- 10. Rationale for DDx and PeCDF RALs (EPA's original 2011 rationale was vague on several issues. We would like to see any additional rationale, methods, calculations conducted since then.)
- 11. Additional information on the Historical Source of PCBs at RM 16 ("Shipyard") mentioned by EPA.

The LWG also requests a general timeline for when the following information (noted as pending by EPA on November 13) will be available to LWG:

- 1. How tissue PRGs for fish consumption will be used in the FS and Proposed Plan.
- 2. How the new sediment PRGs will be used (e.g., over what spatial scales will they be applied?, what exposure scenarios and receptors to these scales match to?).
- 3. EPA decision on the need for any SMA changes based on RAL/PRG changes.
- 4. Comprehensive benthic risk areas (CBRAs or "benthic RALs").

Please let us know if you have any questions.

Thank you, Jen Woronets ☺ Anchor QEA, LLC jworonets@anchorqea.com 421 SW Sixth Avenue, Suite 750 Portland, OR 97204 503-972-5014

Please consider the environment before printing this email.

The information is intended to be for the use of the individual or entity named above. If you are not the intended recipient, please be aware that any disclosure, copying, distribution or use of the contents of this information is prohibited. If you have received this electronic transmission in error, please notify us by electronic mail at jworonets@anchorqea.com